

## OTTER and SHRIMP TRAWL SAMPLING PRIORITIES

14

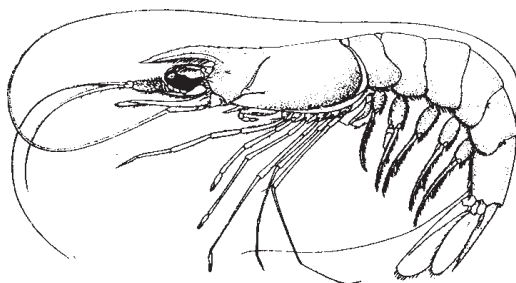
**Table 1c.** Length frequency and age structure sampling priorities in the shrimp trawl fishery\*\*.

Species	Length Frequencies		Age Structures		Species	Length Frequencies		Age Structures	
	Kept	Discard	Kept	Discard		Kept	Discard	Kept	Discard
Massachusetts, New Hampshire and Maine									
Cod, Atlantic	*	1	*	1	Monkfish	1	1	1	1
Flounder, Am. Plaice	*	1	*	1	Ocean Pout	*	1	*	1
Flounder, Sand Dab	*	2	*	2	Pollock	*	1	*	1
Flounder, Winter	*	1	*	1	Redfish	*	1	*	1
Flounder, Witch	*	1	*	1	Skate, Barndoor	-	2	-	-
Flounder, Yellowtail	*	1	*	1	Skate, Little	2	2	-	-
Haddock	*	1	*	1	Skate, Smooth	-	3	-	-
Hake, Red	*	3	*	-	Skate, Thorny	-	2	-	-
Hake, Silver	*	2	*	-	Skate, Winter	2	2	-	-
Hake, White	*	2	*	2	Wolffish	3	3	-	-
Herring, Atlantic	2	2	-	-					
Lobster, American	2	1	-	-					

\* As of 1 January 1994, regulations mandate the use of a Nordmore Grate in all Shrimp Trawl gear which reduces finfish bycatch. Since none of these species may currently be kept, measurement of **all** discards should occur when time permits.

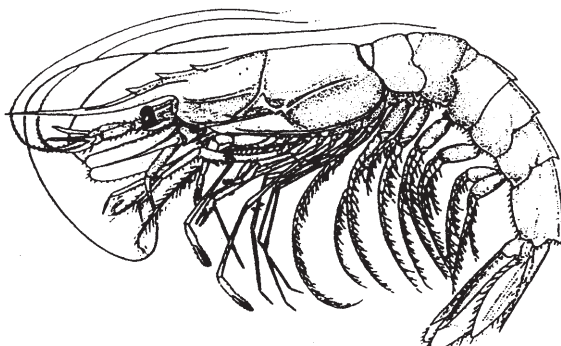
\*\* All weight measurements for discarded species should be actual in this fishery.

The following two shrimp species, which are not contained in *A Field Guide to the Atlantic Seashore* (Gosner, 1987) issued to observers in training, may be encountered in the shrimp trawl fishery.



**Figure 1.** Royal red shrimp *Pleoticus robustus*

- color variable from mostly opaque white to salmon, pink and red
- eyes large with scale-like dorsal projection
- carapace and abdominal segments covered with short hairs; abdominal segments 3-6 have mid-dorsal ridge ending in small spine or tooth
- rostrum medium long, reaching to about the end of antennular peduncle; with ridge and 10-12 spines extending onto carapace
- antennular flagella both long but unequal in length
- carapace length to 42 mm males, 61.5 mm females; total length to 173 mm males, 219 mm females
- benthic, occurring on silty bottoms of upper continental slope 180-730 m, usually below 250 and above 500 m, water temp. 5-15 °C
- commonly encountered from 35° N (Cape Hatteras) south, occasionally extend to 43° N (Scotian Shelf)



**Figure 2.** Scarlet shrimp *Plesioenaeus edwardsianus*

- color is a brilliant crimson red; gold setae fringes
- several lateral ridges on carapace, one with single anterior spine
- long, sharply pointed rostrum equal to at least half the carapace length; 3 dorsal spines
- upper antennular flagellum very short, other flagellum very long, up to 3 times total body length
- abdominal segments 3-6 with dorsal ridge, forming short spine at the end of each segment
- a very large species, carapace length to 55 mm males, 104 mm females; total length to 193 mm males, 334 mm females
- benthic, inhabiting muddy bottoms of continental slope, mostly 400-900 m, water temp. 4-8 °C
- encountered from 47° N (Gulf of St. Lawrence) to Gulf of Mexico

## OTTER and SHRIMP TRAWL SAMPLING PRIORITIES

## SCALLOP FISHERY SAMPLING PRIORITIES

16

- **Every haul** should be observed, *i.e.* complete catch information for both kept and discarded species is recorded, during on-watch periods.
- Collection of length frequencies and age samples should occur at least after **every other observed haul**.
- At minimum, **half** of the hauls should be observed and **one quarter** of the hauls should be biological sampled during a trip.
- At approximately the midpoint of the trip, the observer should switch watches in order to ensure collection of data most representative of the entire trip.

## SCALLOP SHELL HEIGHT FREQUENCIES

- A random sample of at least 100 scallops should be collected and measured **from each disposition** (*i.e.* kept and discarded).
- Collect shell height frequencies from **only one dredge** per haul.
- Sample alternate dredges (*i.e.* port and starboard) each time biological sampling of scallops is conducted.
- Generally, scallop shell height frequency sampling should be the first priority for all hauls, with finfish sampling being second priority.
- For **at least** one haul per watch, finfish sampling should be first priority.

## FINFISH SAMPLING

- Collect finfish length frequencies as a first priority for at least one haul per watch, and on additional hauls, as time permits.
- If a haul has an exceptionally large amount of finfish bycatch, finfish sampling should become first priority for that haul.
- Collect finfish length frequencies and age structures from **both dredges** per haul.